Received: 19 May 2017 | Revised: 19 December 2017 | Accepted: 3 February 2018

DOI: 10.1111/gec3.12369

ARTICLE

WILEY

Sexuality, space, gender, and health: Renewing geographical approaches to well-being in lesbian, gay, bisexual, transgender, and queer populations

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Abstract

Research on sexual orientation and gender identities, such as lesbian, gay, bisexual, transgender, and queer (LGBTQ), has been limited in health geography compared with other sub-fields of the discipline. The reasons for this gap include both the logistical limitations of data on sexual orientation and the historical dominance of visible, measurable infectious, and chronic disease outcomes in medical geography research. While medical geographers were among the first to research HIV/AIDS diffusion among gay men, there is now something of a divide between qualitative geographers studying experience and embodiment and health science researchers examining the socio-spatial determinants of LGBTQ health outcomes. In the following article, we review the LGBTQ health inequalities research, emerging geographies of mental health and substance use among those identified as LGBTQ, and potential avenues for health geographers to re-engage with this field of study.

1 | INTRODUCTION

Geographers have long been concerned with how place mediates inequalities between the health of the general population and that of specific groups based on ethnicity, race, sex, immigrant status, and other characteristics. Sexual orientation, in contrast, remains under-researched in geographic studies of health inequalities (Parr, 2004). In 2007, Del Casino suggested that health geographers have been loath to study the sites, situations, and dynamics of sexual encounters and associated behaviors such as drug use (Del Casino, 2007a). He also suggested that sexualities geographers have only occasionally studied health *outcomes* among those identified as LGBTQ, despite a strong tradition of research on the regulation of public health and the construction of sexual identities and communities (Del Casino, 2007b). More than a decade onward from Del Casino's observations, we consider the degree to which these dual lacunae in health geography and sexualities geographies has persisted, assess recent theoretical and analytical developments, and set out an agenda for future work.

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LGBTQ populations experience many adverse health outcomes more frequently than their heterosexual counterparts (Conron, Mimiaga, & Landers, 2010) in many cases and these inequalities have persisted or worsened over time (Gonzales, Przedworksi, & Henning-Smith, 2016; Jones, 2016). Lesbian and bisexual women, for example, are at greater risk for breast cancer than heterosexual women (Boehmer, 2002; Case et al., 2004). Gay, bisexual, and other men who have sex with men (MSM) face higher risk of HIV and other sexually transmitted infections (STIs; Cochran & Mays, 2007). Depression and anxiety are two to three times more likely to occur in gay, lesbian, and bisexual individuals compared with heterosexuals (Alessi, 2014; Lewis, 2009). Individuals identified as transgender face erasure in many social and health care institutions (Bauer et al., 2009), leading to high rates of depression and suicide and often poor health care experiences (Bauer, Scheim, Pyne, Travers, & Hammond, 2015). Although a great deal of research is now devoted to explaining these outcomes, much more focuses on individual characteristics and behaviors rather than geographic determinants and patterns. The following review outlines the trajectory of health and place research concerning LGBTQ populations, emergent geographies of mental health and substance use, and the distinct contributions that geographers can make to this growing field of study.

2 | THE BEGINNINGS OF SEXUALITY, HEALTH, AND PLACE RESEARCH

Understandings of the relationship between health, sexual orientation, and gender identity beyond frameworks of deviance and illness were limited for much of the 20th century. Although homosexuality was decriminalized in countries such as the United Kingdom and Canada by the end of the 1960s, it remained illegal in many U.S. states until 2003. The removal of homosexuality from the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders in 1973 marked the initial de-pathologization of non-heteronormative sex and sexualities in medical research. Social stigma affecting LGBTQ populations, however, has persisted. Despite some early research on mental health among gay men and lesbian women (see, for example, D'Augelli & Hart, 1987; D'Augelli, 1989), HIV/AIDS tended to dominate the next decade of health research on sexuality and health.

Medical geographers in the 1980s and 1990s were concerned largely with opportunities to model the spatial diffusion of a rapidly expanding HIV/AIDS epidemic. Studies of HIV diffusion patterns (e.g., Cliff & Haggett, 1988; Gould, 1993), for example, accounted for the geographic locations of gay men only to the extent that they were a correlate of infection rates. Similarly, work addressing AIDS-related migration (Cohn, Klein, Mohr, van der Horst, & Weber, 1994; Ellis & Muschkin, 1996; Findlay, 1993) was interested largely in the potential for HIV-positive gay men to overwhelm local and regional public health systems as they returned home for care. Although these studies helped to uncover the spatial epidemiology of HIV/AIDS at a time when relatively little was known about the subject, they addressed the sexual subjectivities and experiences of these men only tangentially. Early medical geography, then, may have inadvertently re-pathologized homosexuality by positioning gay and bisexual men as dangerous vectors of disease rather than vulnerable individuals (M. Brown, 1995).

The 1990s and 2000s were watershed decades for research on the broader health outcomes of LGBTQ populations. As societal norms shifted in North America and Western Europe, voices of diverse sexual orientation and gender identity groups gained greater legitimacy and media attention (Smith, 2008; Weeks, 2007). Psychologists and psychiatrists, for example, developed minority stress theory (Meyer, 1995, 2003) to explain that chronic, often internalized social stigma and consequently elevated levels of stress were the primary causes of high depression, anxiety, and suicide rates within LGBTQ populations. Psychologists have also now begun to examine the specific role of microaggressions (i.e., common and often daily verbal and behavioral insults towards marginalized groups) as a vehicle of minority stress (Nadal et al., 2011). To align with these new theories, health scientists began to expand their work on the social determinants of health beyond income and poverty. Medical sociologists in particular (e.g., Graham, 2007; Graham & Kelly, 2004) were instrumental in introducing sexual orientation as an aspect of social identity or position that could, in tandem with particular social environments, contribute to unequal health outcomes. Academic researchers had thus begun to recognize sexuality as an axis of social difference and not just a predictor of disease.

3 | SEXUALITY, GENDER, AND HEALTH IN GEOGRAPHY'S QUALITATIVE TURN

Medical geography in the 1990s experienced its own transformation into a "new" health geography that adopted more flexible approaches to the place-health relationship (Rosenberg, 1998). This "reformed" medical geography was inspired by a cultural turn in human geography that shifted the discipline's focus from uncovering spatial patterns to elaborating flexible and subjective experiences of place (Kearns, 1993). Qualitative health geographers began to examine everyday spaces of well-being such as the home and the doctor's office, using life history interviews and storytelling to understand health outcomes (Dyck, 2003). Some of the earliest work in this vein counteracted the medicalizing tendencies of HIV/AIDS diffusion studies by focusing on implications of the epidemic for gay men's individual life-worlds (Wilton, 1996) and community advocacy strategies (M. Brown, 1997). This vein of health geography has continued apace, with a new generation of researchers examining how HIV-positive gay and bisexual men negotiate their place in the world following diagnosis (Myers, 2010).

Many have examined the regulation of LGBTQ populations *through* public health institutions using critical social theory and especially Foucauldian theories of biopolitics and governmentality. Both Tim Brown (2000) and Michael Brown (2006) have examined the use of HIV/STI prevention campaigns in the 1970s, 1980s, and 1990s as tools to circumscribe definitions of "normality" and "responsibility" for gay and bisexual men. More recently, Kesby and Sothern (2014) have observed that public health authorities knowingly commit ecological fallacies by projecting their knowledge of population-level HIV prevalence data onto the supposed "riskiness" of blood donations from individual men who have sex with men (MSM). In Canada and the United Kingdom, MSM are deemed a high-risk group that must report a 12-month abstention from same-sex contact to donate, whereas men having sex only with women are presumed fit to donate. Kesby and Sothern suggest that this group-based categorization of risk masks individual risk profiles within each group (e.g., MSM in monogamous relationships engaging in safer sex vs. heterosexual men having unprotected sex with multiple female partners) and is rooted in fear and stigma rather than sound scientific evidence. Others have provided a counterpoint to these biopolitical and regulatory approaches by examining care and resilience in LGBTQ populations. Using the concept of the therapeutic landscape (Gesler, 1992), many have examined the role that social spaces (e.g., bars and bath houses) play in facilitating care and well-being among gay and lesbian populations (Andrews & Holmes, 2007; Brown, Knopp, Bettani, & Childs, 2014).

Sexualities geographers have also examined aspects of social exclusion among those identified as LGBTQ. Valentine (1998) offered a personal account of fear, anxiety, and depression as a lesbian woman in a hostile academic workplace. Employing the concept of sexual citizenship, Binnie (1997) considered the ways in which sexual identity affected the political and social inclusion of LGBTQ populations in and beyond their respective countries. Others have since debated the ways in which existing power structures privilege middle-class gay men and lesbians who also become complicit in those structures (Nast, 2002; Oswin, 2005; Sothern, 2004). Although power and exclusion certainly have implications for health and well-being, few sexualities geographers studying these topics have focused explicitly on health outcomes.

Research on sexual and gender diversity has meanwhile remained somewhat marginalized in applied health geography (Del Casino, 2007a; Dyck, 2003; Parr, 2004). While geographers have uncovered spatially mediated processes of exclusion, regulation, and coping that would likely influence health in LGBTQ populations, few have developed models to predict ill health in these populations or interventions to improve health outcomes. There are undoubtedly methodological challenges to integrating sexual and gender subjectivities into more traditional models that analyze socio-spatial determinants of health from a quantitative perspective. Although national health and social surveys (e.g., Health Survey for England, Canadian Community Health Survey) are beginning to include sexual orientation questions in select waves and years, few include consistent year-to-year data and sample sizes are often small. Analysis of these surveys also requires accepting pre-given sexual behavior or identity categories, which runs counter to the growing emphasis on "queer" and other more fluid sexual identities in human geography (see Oswin, 2008). Finally, critical geographers may be hesitant to study sexualities and health outcomes as related phenomena

lest they reinforce the notion that "risky" behaviors (e.g., substance use, unprotected sex) are somehow simply embedded culturally in certain LGBTQ communities. Explicitly contextual and spatial work has, however, emerged in two key areas of LGBTQ health research: mental health and substance use.

4 | EMERGING GEOGRAPHIES OF MENTAL HEALTH AND SUBSTANCE USE IN LGBTQ POPULATIONS

Poor mental health is an area of stark inequality between LGBTQ and heterosexual/cisgender populations as well as a potential contributor to other health inequalities between these groups. Research that *explains* these inequalities, however, has long been limited largely to psycho-behavioral models. These frameworks link the prevalence of adverse mental health outcomes with sexual practices, health knowledge, or sense of attachment to the gay community (Stall et al., 2001). While many studies employ minority stress theory to contextualize these factors, they perhaps overstate the importance of individual-level factors rather than place factors in the mediation of minority stress (Gruskin, Hart, Gordon, & Ackerson, 2001).

The connection between *place* and mental health for LGBTQ populations is now becoming clearer (Hatzenbuehler, Phelan, & Link, 2013; Lewis, 2009) as researchers are increasingly able to use secondary data from health and social surveys to study the relationships between laws, social norms, and mental health outcomes (Bourne, Reid, Hickson, Torres Rueda, & Weatherburn, 2014; Conron et al., 2010; Gruskin et al., 2007). Structural prejudice levied by political jurisdictions (e.g., lack of rights or protections for LGBTQ groups) is now considered an important determinant of mental health among LGBTQ populations in Europe and North America. For example, individuals from more politically conservative Eastern European countries report greater levels of internalized stigma than those from Western European countries (Berg, Ross, Weatherburn, & Schmidt, 2013). Mental health outcomes may be even worse beyond the Euro–American context, as studies in Asian and Middle Eastern countries (see, for example, Regmi & van Teijlingen, 2015) have shown that individuals identifying as LGBTQ often face significant discrimination due to cultural and familial expectations of a heteronormative life course including heterosexual marriage and childbirth. Research in Turkey, for example, has found that most LGBTQ people choose not to disclose their sexual orientation in employment, education, and health care settings (Gocmen & Yilmaz, 2016).

Others have investigated differences in the mental health of LGBTQ populations between urban and rural regions within countries (Berg et al., 2013; Poon & Saewyc, 2009; Wienke & Hill, 2013). Younger people identifying as LGBTQ and living in rural areas have reported more substance use, binge drinking, isolation, and suicidal feelings compared with those in urban areas (Poon & Saewyc, 2009). Some have suggested, however, that the effect of rural environments on LGBTQ mental health has been overstated and that larger cities are actually associated with poorer well-being outcomes (Wienke & Hill, 2013). Studies at the regional and local levels also link stigma-related factors (e.g., laws and religiosity) to health outcomes. For example, the previous prohibition of same-sex marriage in most U.S. states has been linked to poorer mental health outcomes (Herdt & Kertzner, 2006). Similarly, living in states that lack policies to protect LGBTQ populations are associated with feelings of hopelessness and expectations of violence and victimization among those individuals (Everett, 2014; Hatzenbuehler, 2010). Informal social environments (e.g., churches and communities), whose characteristics cannot be measured easily but are still mediated geographically can also contribute to minority stress (Lewis, 2014).

The epidemiological research on substance use in LGBTQ populations traditionally has connected drug use to individual beliefs and intention to use specific drugs rather than location or drug availability (Ramchand, Fisher, Griffin, Becker, & Iguchi, 2013). While the use of some substances (e.g., tobacco) tends to be higher in across LGBTQ groups compared to their heterosexual counterparts (Tang et al., 2004; Gruskin et al., 2007; Lee, Griffin & Melvin, 2009), specific substance use patterns vary by sub-population. Tobacco use and associated risk factors are also consistently higher in sexual minority groups compared to heterosexual populations (Tang et al., 2004; Gruskin et al., 2007; Lee,

Griffin & Melvin, 2009), while Inequalities in alcohol consumption tend to be much greater between lesbian and heterosexual women than those between gay and heterosexual men (Drabble, Midanik, & Trocki, 2005). Younger lesbian and bisexual women are also more likely to report heavy alcohol intake than both heterosexual women and older lesbians (Gruskin et al., 2001).

Researchers are now also beginning to recognize the implications of place for substance use in LGBTQ populations. Several studies have noted differences in the frequency of drug use and type of drugs among MSM across different regions of the United States (Stall et al., 2001; Thiede et al., 2003), with one finding an additional association with higher frequencies of unprotected anal sex (Hirshfield, Remien, Humberstone, Walavalkar, & Chiasson, 2004). In contrast to the existing mental health research, substance use studies have found religious areas to be associated with *less* engagement in alcohol use, and tobacco consumption, and unprotected sex, provided that those areas are also have laws supporting those who identify as LGBTQ (Hatzenbuehler, Pachankis, & Wolff, 2012). A few studies have focused specifically on the neighborhood scale (Carpiano, Kelly, Easterbook, & Parsons, 2011; Egan et al., 2011; Everett, 2014). While some have found that living in a "gay neighborhood" is correlated with higher levels of drug use and unprotected sex among gay men (Carpiano et al., 2011; Egan et al., 2011), others have observed that living in an urban, liberal neighborhood has a protective effect against depression and anxiety (Everett, 2014).

There is also a growing body of research looking at drug use among gay men and other MSM in specific *settings* such as clubs and sex parties. "Chemsex" refers to MSM who use drugs before or during sex and has received both significant media and research attention in recent years (Bourne et al., 2014). Most of the research surrounding chemsex focuses on the link between drug use, unprotected sex, and HIV infection within individuals (Petersson, Tikkanen, & Schmidt, 2016). Bourne et al. (2014) used data from the European Men who have sex with men Internet Survey (EMIS) to identify drug use in the context of chemsex across three locations in the United Kingdom. While the study notes potential geographical differences in chemsex practices, they are not discussed in relation to differences in outcomes across the three study locations. Additional studies have suggested, however, that permissive social norms and other stimuli located in specific cities, neighborhoods, and venues may increase drug use (Theodore, Duran, & Antoni, 2014).

The emerging research on mental health and substance use in LGBTQ populations attends to the role of both physical and social environments in shaping risk and therefore has the potential to advance understandings of the relationships between health and place in these populations. At the same time, there are theoretical and methodological limitations in this work that risk reinforcing some of the problems observed in the earlier geographic studies of sexuality and health. The ongoing focus on individual psycho-social correlates such as self-esteem, depression, and childhood abuse in LGBTQ mental health research can reinforce the stigmatization and marginalization of LGBTQ populations. Similarly, the ongoing measurement of individual substance use without attending to environmental factors can reinforce the problematic notion of LGBTQ "lifestyles" in which substance use is ostensibly normalized (Lewis, 2017).

Work that attends to more contextual factors can still stigmatize and even pathologize the places that intersect with LGBTQ lives. Quantitative studies examining gay neighborhood residence, substance use, and sexual health (e.g., Buttram & Kurtz, 2013; Carpiano et al., 2011), for example, tend to imply that certain locations somehow *create* "risky" lives. They measure the degree to which gay neighborhoods and nightlife districts might alternately support LGBTQ identities or facilitate risk behaviors (Egan et al., 2011; Stall et al., 2001) but they do not necessarily reveal how these places intersect with broader LGBTQ life-worlds. While neighborhood-focused research therefore provides a signpost for health promoters looking to "target" LGBTQ populations for substance use and HIV prevention interventions, it often implicitly pathologizes urban gay neighborhoods as unhealthy places.

5 | CONCLUSION: WHAT CAN HEALTH GEOGRAPHERS CONTRIBUTE NOW?

There is clearly still need for research that acknowledges the interplay of individual and spatial factors contributing to LGBTQ health outcomes. Health geographers that are now well positioned address sexual and gender difference as an

important mediator of place-health relationships while avoiding the pathologization of places and groups that characterized earlier medical geography. As seen in research on indigenous health (Browne, Smye & Varcoe, 2005; Lavallee & Poole, 2010), the absences illuminated in early-stage research can perhaps be addressed by integrating critical analytic approaches with existing methodological traditions. We argue that geographers can achieve this objective by applying established health geographic approaches to research on LGBTQ populations, considering intersectionality in this research, and attending to new frontiers of inequality.

The emergence of multilevel modeling in the study of LGBTQ health represents an area in which health geographers can make a significant contribution. Bauermeister et al. (2015), for example, have used multilevel modeling to map HIV risk in MSM according to both individual and neighborhood characteristics. This technique allowed the authors to draw inferences from both individual factors such as ethnicity, substance use, relationship status, and from neighborhood-level factors such as proximity to community support centers, community-based stigma, and area-level socioeconomic status. In addition, data linkage may provide an avenue for joining large-scale social survey data on political and social attitudes to (usually smaller) health surveys that include a sexual orientation variable. This would allow geographers to begin studying the connections between levels of social acceptance and spatially variable stress-related health outcomes in LGBTQ populations. Given the strong tradition of research in the geographic determinants of substance use (Duncan, Jones, & Moon, 1999; Pearce, Hiscock, Moon, & Barnett, 2009), health geographers might also choose to look more closely at the spatial interactions of sexual orientation and the use of alcohol, tobacco, and illicit drugs. Such strategies may help bring the study of LGBTQ health further "upstream" to assess whether area-level determinants have different effects on the health outcomes of different sexual orientation and gender identity groups.

Health geographers might also investigate the dynamics between individual life-worlds and "risky" venues by following the cues of medical anthropologists who explain health disparities through cultural models rather than behavioral ones (Silenzio, 2003). Extending the excellent geographic work on gay and lesbian life-worlds and spatial attachments (Brown & Knopp, 2008; Wilton, 1996), qualitative health geographers could begin investigating some of the more socially controversial spaces (e.g., sex parties) that intersect the lives of some LGBTQ people. While research of this nature requires careful consideration of safety and positionality (see Bain & Nash, 2006), it also serves to deconstruct risk behaviors as more than just irresponsible hedonism (see Andersson, 2011). Using concepts from feminist geography such as embodiment and emotion, qualitative studies might explore the linkages between, for example, social stress, the use of different venues as therapeutic spaces, and the potential for health risks within them. Such studies would begin to illustrate the internal dynamics of places and events that are sometimes categorized more flatly as "risky" or risk-associated in the epidemiological literature.

Following Gesler (1992), geographers could also consider the genesis of affinities for new types of therapeutic sites among individuals identified as LGBTQ; for example, the creation of trans communities and support systems around gender reassignment clinics rather than in traditional gay or queer neighborhoods (Browne & Lim, 2010). Geographers interested in health services could also investigate whether higher geographic concentrations of services earmarked specifically for LGBTQ populations are associated with *better* health outcomes in those populations. They might also examine issues of area-level access and stigmatization to different levels of engagement with health promotion activities such as HIV testing (Berg et al., 2013). Both types of efforts may require the formulation of new databases and datasets from the ground up through community-based participatory research.

Health geographers must also attend to the various structures and events that have recently been "queered" by scholars in sexualities and trans geographies. Like other groups (e.g., newcomer populations) that health geographers have studied, those who identify as LGBTQ may have family forms that diverge from the mainstream (Gorman-Murray, 2008). Much like extended families may provide resilience against health risks such as work-related stress among immigrants (Dean & Wilson, 2010), supportive families and same-sex partners may guard against place-rooted stressors, while less supportive or abusive families and partners may exacerbate these stressors. For trans-identified populations, it will be important to examine the health impact of urban spaces that, because of heteronormative planning procedures, remain unsafe for people who are trans or who express a non-normative gender representation

(Doan, 2007, 2009). Migration itself is another area of study in which health geographers can track the relationships between displacement, movement, and health. For young and under-resourced LGBTQ individuals who move away from home (Bruce & Harper, 2011), the destination environment may have a therapeutic effect in some respects but also introduce social and sexual scenes that are unfamiliar and therefore distressing (Lewis, 2014, 2016).

Next, geographers can draw attention to groups and identities that continue to be under-researched in LGBTQ health. While work in the health sciences has revealed that health inequalities between trans and cisgender populations often outpace even those between sexual orientation groups (Bauer et al., 2009), it remains unclear whether trans populations located outside of large cities face a health disadvantage (Berg et al., 2013). Geographers, with their expertise in how places are experienced and embodied, may be able to draw out the linkages between trans embodiment and health (Nash, 2010). There is also considerable potential for contributions by researchers from India, Brazil, and other countries with perspectives that defy Euro–American understandings of an LGBTQ hierarchy in which trans-identified individuals are the most socially marginalized (e.g., Silva & Vieira, 2014). The development and impact of this work, however, is often limited by socially conservative higher education regimes and neo-colonialist academic networks that marginalize work on trans populations and identities.

There is also a need for work on intersectional identities in LGBTQ health, another area in which medical anthropologists have spearheaded new lines of research. Recent studies have argued that developing appropriate interventions for HIV prevention requires a contextual understanding of the norms that may lead to transmission among gay and bisexual men in diverse cultural communities (Janes & Corbett, 2009; Silenzio, 2003). Geographers have already begun to extend this research by differentiating risk factors for gay and bisexual ethnic minority men who are new immigrants versus those who are second generation- (Lewis, 2016; Lewis & Wilson, 2017).

Finally, geographers can illuminate persistent areas of inequality as the social landscape of inclusion for LGBTQ populations continues to change. Geographers have been instrumental in drawing attention to flashpoints of exclusion amidst these new equalities (see, for example, Browne and Nash's 2014 work on social resistance towards LGBTQ rights recognition). The inclusivity of sex education in schools has also become a lightning rod for homophobic and transphobic discourse in an era of new legal equalities (McCarty-Caplan, 2013; Tracy, 2015). The ongoing heteronormativity of sex education may be a key factor perpetuating health inequalities among different sexual orientation and gender identity groups (Buston & Hart, 2001). Recent work has outlined the different "socio-geographies" of health education and health services for LGBTQ populations, noting both measurable and perceived differences in access to care across large cities, smaller towns, and rural areas (Baker & Beagan, 2016). There is increasing evidence to suggest that less inclusive health education in socially conservative environments can create a sexual health disadvantage for those who identify as LGBTQ (Lewis, 2015).

We hope to have advanced Del Casino's original call for a more theoretically engaged, comprehensive integration of sexualities and gender identity into health geography. As the previous review suggests, many of the gaps observed in 2007 (e.g., the lack of spatial and contextual studies of sexual health) have been addressed at least partially. Geographical research on sexual orientation, gender identity, and health has moved beyond responding to the global crisis of HIV/AIDS through spatial science and now addresses the experiences of LGBTQ people more fully. Through renewed theoretical approaches and methodological applications, researchers interested in LGBTQ health can extend geography's rich tradition in using theories of social disadvantage to identify well-being inequalities, trajectories, and interventions.

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How to cite this article: Davies M, Lewis NM, Moon G. Sexuality, space, gender, and health: Renewing geographical approaches to well-being in lesbian, gay, bisexual, transgender, and queer populations. *Geography Compass*. 2018;12:e12369. https://doi.org/10.1111/gec3.12369